

REMARKS

The claims presently pending are Claims 1-33. Claims 1 and 20 have been amended, as shown above. These amendments are respectfully submitted to not introduce new matter and their entry is respectfully requested.

I. OBJECTION TO THE ABSTRACT

The Abstract was objected to due to the recitation of the phrase “is disclosed” in line 1. Applicant has amended the Abstract to remove the phrase “is disclosed,” as requested by the Examiner. Accordingly, Applicant respectfully requests the Examiner to withdraw the objection to the Abstract.

II. OBJECTION TO THE CLAIMS

Claim 20 was objected to as being dependent upon itself. The Applicant has amended Claim 20 to correct the typographical error and make Claim 20 dependent upon Claim 19, as requested by the Examiner. Accordingly, Applicant respectfully requests the Examiner to withdraw the objection to Claim 20.

III. ALLOWABLE CLAIMS

The Applicants thank the Examiner for the indication that Claims 3-5, 8-14, 16-18, 21-22, 24-28 and 30-33 would be allowable if rewritten in independent form to incorporate the elements of their respective base claims and any intervening claims. However, since the Applicants believe that the remaining claims in this application are patentable, the Applicants have not rewritten Claims 3-5, 8-14, 16-18, 21-22, 24-28 and 30-33 in independent form.

IV. REJECTION UNDER 35 U.S.C. § 102

Claims 1, 6, 7, 15, 19, 20, 23 and 29 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Wang (U.S. Patent No. 6,781,626). In light of the above amendments, Applicant respectfully traverses this rejection.

A cited prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single cited prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Regarding independent Claims 6 and 19, on page 4 of the Detailed Action, the Examiner stated that Wang taught “a first degree of change using the set of first color values and a second degree of change using the set of second color values (a continuity measure $C(i,j)$ is determined at each pixel location for green, red and blue values for determining the degree of continuity in the horizontal and vertical directions...), the first and second degrees of change each having a row component and a column component (horizontal and vertical).” The Examiner cited column 7, lines 45+ of Wang as teaching such a limitation.

However, in column 7, lines 45+ and throughout Wang, the continuity measure for each pixel location is either positive, indicating the degree of continuity in intensity values in the horizontal direction, or negative, indicating the degree of continuity in intensity values in the vertical direction. Thus, the continuity measure is a single integer value, which does not teach two values corresponding to “a first degree of change” and “a second degree of change,” in which both the “first degree of change” and the “second degree of change” each include “a row component” and “a column component” as recited in Claims 6 and 19. At most, Wang teaches a single degree of change (continuity measure) with either a row

component or a column component ascertained from the value of the continuity measure (positive or negative). In addition, since there is only a single continuity measure, Wang does not teach or suggest determining a “first degree of change” from “a set of first color values” and a “second degree of change” from “a set of second color values,” as recited in Claims 6 and 19.

Furthermore, regarding Claim 1, Applicant has amended Claim 1 to make it clear that the “first edge-orientation” and the “second edge-orientation” each include “a row component” and “a column component.” On page 3 of the Detailed Action, the Examiner stated that Wang taught “a first edge-orientation of a first color and a second edge-orientation of a second color … [by teaching] the local intensity gradient at the location (i,j) and a continuity bias representative of an intensity.”

As mentioned above, in Wang, the continuity measure for each pixel location is either positive, indicating the degree of continuity in intensity values in the horizontal direction, or negative, indicating the degree of continuity in intensity values in the vertical direction. Likewise, the continuity bias, which is defined in Wang as a weighted sum of the continuity values surrounding the pixel location, also is a single integer value with either a row component (a positive value indicating the horizontal degree of continuity in the neighborhood) or a column component (a negative value indicating the vertical degree of continuity in the neighborhood). Thus, Wang does not teach or suggest both “a first edge-orientation” and “a second edge-orientation,” in which both the “first edge-orientation” and the “second edge-orientation” each include “a row component” and “a column component” as recited in Claim 1.

Therefore, the Office Action has failed to demonstrate anticipation of each and every element of the Applicant’s independent Claims 1, 6 and 19 (and their dependent claims)

arranged as they are in the claims. Accordingly, the Applicant respectfully requests the Examiner withdraw the § 102(e) rejection of Claims 1, 6, 7, 15, 19, 20, 23 and 29.

V. REJECTION UNDER 35 U.S.C. § 103

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Shinohara et al. (article entitled “Color Image Analysis in a Vector Field”). Applicant respectfully traverses this rejection.

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 2142.

Claim 2 depends from Claim 1. Since dependent claims necessarily include all of the limitations of the claims from which they depend, Applicants respectfully submit that, in light of the amendments to Claim 1, Claim 2 is not obvious in view of the cited prior art. Accordingly, Applicants respectfully request that the Examiner withdraw the § 103 rejection of Claim 2.

VI. CONCLUSION

Thus, all grounds of rejection and/or objection are traversed or accommodated, and favorable reconsideration and allowance are respectfully requested. Should the Examiner have any further questions or comments facilitating allowance, the Examiner is invited to contact Applicant's representative indicated below to further prosecution of this application to allowance and issuance.

Respectfully submitted,

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